

**ABSTRACT**

***ENHANCEMENT OF HEMATOPOIETIC STEM CELL SURVIVAL***

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A composition is disclosed that includes  $\text{lin}^-$  cells that are characterized as expressing CD31, CD34 and CD105, and not expressing c-kit, wherein the composition comprises fewer than 20% of lineage committed cells. Methods are disclosed for isolating  $\text{CD31}^+\text{CD34}^+\text{CD45}^-\text{CD105}^+\text{c-kit}^-$  cells. Methods for  
10 reconstituting hematopoiesis using compositions including  $\text{CD31}^+\text{CD34}^+\text{CD105}^+\text{CD45}^-\text{kit}^-$  cells are also disclosed.